

Australian Journal of Teacher Education

Volume 36 | Issue 12

Article 1

12-2011

Putting Partnership at the Centre of Teachers' Professional Learning in Rural and Regional Contexts: Evidence from Case Study Projects in Tasmania

Sue Stack

University of Tasmania, susan.stack@utas.edu.au

Kim Beswick

University of Tasmania, kim.beswick@utas.edu.au

Natalie Brown

University of Tasmania, Natalie.Brown@utas.edu.au

Helen Bound

Institute of Adult Learning Singapore

John Kenny

University of Tasmania, John.Kenny@utas.edu.au

Joan Abbott-Chapman

University of Tasmania, J.AbbottChapman@utas.edu.au

Follow this and additional works at: <https://ro.ecu.edu.au/ajte>



Part of the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Stack, S., Beswick, K., Brown, N., Bound, H., Kenny, J., & Abbott-Chapman, J. (2011). Putting Partnership at the Centre of Teachers' Professional Learning in Rural and Regional Contexts: Evidence from Case Study Projects in Tasmania. *Australian Journal of Teacher Education*, 36(12).
<http://dx.doi.org/10.14221/ajte.2011v36n12.7>

This Journal Article is posted at Research Online.
<https://ro.ecu.edu.au/ajte/vol36/iss12/1>

Putting Partnership at the Centre of Teachers' Professional Learning in Rural and Regional Contexts: Evidence from Case Study Projects in Tasmania

Sue Stack
University of Tasmania

Kim Beswick
University of Tasmania

Natalie Brown
University of Tasmania

Helen Bound
Institute for Adult Learning, Singapore

John Kenny
University of Tasmania

Joan Abbott-Chapman
University of Tasmania

Abstract: This paper presents a professional learning (PL) model that emerged from the authors' involvement with PL processes in several rural and remote schools in the state of Tasmania. As is the case for rural areas generally, young people in rural areas of Tasmania have lower retention rates to Year 12 and lower participation rates in higher education than their urban peers. Schools in these regions typically have less experienced staff, higher staff turnover and reduced access to professional networks compared with urban schools. Four case studies are presented to illustrate the experiences that lead to the partnership model of PL and the authors' insights into the nature of collaborative partnerships in rural contexts are discussed. The study makes a contribution to understanding of the development of effective PL partnerships in rural schools as well as contributing to broader debates about the nature of partnership between teachers and facilitators of PL.

Introduction to the Research Setting and Project Goals

In this paper a partnership model is presented of teachers' Professional Learning (PL), which has grown out of the experiences provided by fifteen projects sponsored and supported by the National Centre for Science, Information and Communication Technology (ICT) and Mathematics in Rural and Regional Australia (SiMERR) and its Tasmanian Hub. From these

fifteen projects four case studies have been selected for analysis, as discussed in this paper. The processes of partnership formation and the development of shared understandings between teachers in Tasmanian rural schools and university lecturers as ‘facilitators’, which run through all the case studies, has been the subject of meta-analysis and on-going reflection and feedback of all participants, with the aim of discovering common themes which might guide future PL projects.

The over-arching goal of the project was the identification of key factors in the rural teaching/learning situation which might improve student participation and retention rates. A number of research projects and reports have highlighted lower post-compulsory retention in rural and regional Australia than in metropolitan areas. The groups most under-represented in higher education, to a degree that has changed little over the last decade “are students from remote parts of Australia, indigenous students and students from lower socio-economic backgrounds” (Bradley, Noonan, Nugent & Scales, 2008, p. 10). Regional and remote students are seriously under-represented in higher education and “participation rates of both have worsened over the last five years” (Bradley et al., 2008, p. 31). A report by the Centre for Studies in Higher Education (CSHE) (2008) confirms that people living in rural or remote areas and people from low SES backgrounds “are highly underrepresented and their participation shares have not changed markedly despite 15 years of equity policy” (2008, p. 15). The aspirations of rural school leavers and their parents tend to be more modest than those of their urban counterparts and their opportunities for further study are more limited (Kilpatrick & Abbott-Chapman, 2002; Alloway, Gilbert, Gilbert & Muspratt, 2004; Baxter, Gray & Hayes, 2011). Young people living in rural areas in Australia are less likely to complete Year 12 and to participate in vocational education and training than their urban counterparts (Abbott-Chapman, 2007, 2011). Green and Reid (2004) suggest that, due to the metro-centric nature of Australian teacher education and educational facilities, there is a lack of equity in education provision for young people in rural and regional areas. It is also more difficult to recruit and to retain teachers in rural schools, especially in specialist subject areas like Maths, Science and ICT (Gale and Mills, 2003). The development and increasing use of ICT, distance and on-line learning is important in reducing the spatial and social rural/urban divide (Anderson, Timms, & Courtney 2007), by contributing to student learning environments and supporting school transitional programs (Maher, 2010). It is therefore very important for rural teachers to be enabled to develop competences in the use of ICT in the classroom through PL. Tasmania is an ideal place in which to study these issues because of its high degree of rurality (ABS, 2004), its socio-economic disadvantage as measured by a range of indices (ABS, 2007), and its traditionally lower rates of post-compulsory retention than all other states except the Northern Territory (ABS, 2010).

SiMERR’s Role in Improving Rural Students’ Educational Outcomes

The Tasmanian SiMERR hub is part of the national SiMERR network and is based in the Faculty of Education of the University of Tasmania. In 2005, the hub advertised throughout the state for expressions of interest in creating innovative projects, to be supported by SiMERR. This resulted in a total of 15 projects conducted over 3 years that involved 80 schools and some 200 teachers (Watson & Stack, 2009). The projects ranged from small local initiatives instigated by school champions to larger systemic undertakings. They included such things as implementing new technology, creating teaching resources, building teaching capacity and program development that directly engaged students, such as robotics and on-

line game-making courses. PL of teachers was common to most of the projects. University researchers were involved in project coordination/mentoring, PL facilitation, and associated project research and evaluation.

One of the first Tasmanian SiMERR projects (Beswick & Brown, 2006) used a series of focus groups to scope the issues that teachers, students and parents faced in the rural and regional context. The study highlighted the following issues facing teachers in accessing PL and support.

- Lack of time to attend PL. There is often a high percentage of early career teachers in regional and rural schools. These teachers, coping with teaching for the first time, often out of discipline area and with few resources or cohesive planning materials available in the school have little time for any activities beyond core planning and teaching.
- Few, if any, expert or experienced teachers to mentor or to provide PL for others within the school.
- Lack of access to relief teachers in the area to take classes while doing PL.
- The need for significant travel time to get to PL opportunities in major centres.
- High rates of teacher turnover leading to their learning leaving the school unless specifically handed-over. The resultant loss of “corporate memory”, quickly erodes changes in teaching practice.
- Lack of adequate ICT systems to facilitate connection beyond the school to professional communities or PL opportunities.

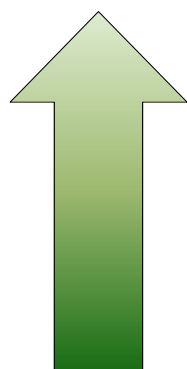
Although many of the subsequent projects were designed to overcome such constraints there was variable success. Following this project’s completion, the Tasmanian SiMERR research team engaged in a process of guided reflection and meta-analysis of lessons learned. This highlighted deeper themes underlying development of effective PL in rural and regional contexts. The four case studies presented here illustrate the common ‘learnings’ at many levels and in diverse contexts within which PL partnerships were developed and maintained.

Professional Learning Partnerships

The term “professional learning” is used deliberately rather than “professional development” since effective professional development cannot take place without new learning. Acknowledging this fact necessitates articulation of a theoretical perspective on learning (Lerman, 1997). This study argues that professional learning is a co-constructed activity to which language and social interaction are central, and which takes place within social and political contexts which must be taken into account (Freire 1972; Jofili, Geraldo, & Watts, 1999). This critical constructivist view of learning is particularly relevant to PL, because roles and titles of participants within PL programs carry connotations of power that profoundly impact the learning that occurs.

Learning can also be considered in terms of the nature and degree of the change that occurs. Yorks and Marsick (2000) suggest a series of levels ranging from the acquisition of knowledge with no change to the learner’s perspective, to a major re-shaping of cognitive structures. This spectrum of learning is represented in Figure 1.

Trans-form -ation



In-form -ation

FORM	PROCESS
Adopting new cognitive structures	Reflection on process, content and premises
Adopting new points of view	Reflection on process and content
Analysis within existing frames of reference	Reflection on content
Elaboration within existing frames of reference	Gather content Incidental reflection

Figure 1: Types of Learning (source Stack, S., 2007, p.85)

This study's focus is on PL that aims for change at one of the three higher levels, rather than PL to provide a top-up of knowledge or skill, which requires only specific training around a resource. PL discussed here demands change of current practice, requiring significant "border crossings." This metaphor as used by Silver (2003) and Mullohand and Wallace (2003) imply the need for teachers and researchers to cross the boundaries of each others' cognitive spaces, not only between their differing agendas and concerns, but also in relation to pedagogical expertise. Transformational change is likely to require long term involvement using programs such as action research (Garet, Porter, Desimone, Birman, & Yoon, 2001). The processes involved may challenge teacher identity and roles, values or world views (Mezirow, 2000).

The literature includes many recommendations for maximising the impacts of effective PL on practice (Hawley & Valli, 1999), and the stages of learning through which teachers typically pass (Schifter, 1995). These underline the need for collaborative problem solving, support from other stakeholders and continuity over time. Sztajn, Campbell, and Yoon (2009) urge researchers to move beyond list-making to focus on the theoretical underpinnings of PL models, which they suggest should pay attention to the goals, contexts, theories and structures of PL.

In the case of the SiMERR projects the need for key stakeholders to establish relationships and to identify shared goals, in the social contexts of selected rural and regional schools and communities, was of particular importance. There are already models that go some way towards addressing this need. Sowder (2007), for example, referred to the work of Stein, Smith and Silver (1999, pp. 239-240) in which they presented what they termed "a new paradigm for professional development." Nevertheless, they made a clear distinction between the expertise and positions of teachers and university facilitators. Traditional approaches to PL through group instruction or individual coaching usually represent a unidirectional flow of information from expert to novice.

Eisen's non-traditional approach in the field of nursing (2001), promoted joint reflection and reciprocal learning between professionals. Among teaching professionals this process involved collaborative discourse practices (Lieberman, 1995) and underlined the need for collaborative leadership and public support within Communities of Practice (Wenger,

McDermott, & Snyder, 2002; Talbert, Coburn, Eilers, Lin, & McLaughlin, 2008). “Parity or equality among all members of the partnership, also accounts for the success of the collaborative effort” (Baines, 1997, p. 145).

High levels of communication, collaborative decision making and teacher “ownership” of decisions made are needed (Williams & Thorpe 1998), because university staff, whether consciously or unconsciously, influence the partnership agenda through “institutional power and expert status” (Prins, 2006, p. 3), “Collaboration” demands more time and effort than mere “Co-operation” and strong collaborative partnerships include frequent inter-personal communication among team members (Baines 1997). Moriarty and Gray (2003) argue that although professional goals can be achieved through strategic partnerships between universities and schools, partners should formally monitor and evaluate processes involved, in order to contribute theoretically to existing models of collaboration. This is what the authors of this paper set out to do.

The Four Case Studies

Case Study 1: Expanding Science Literacy in Tasmanian Rural and Regional Schools

The Expanding Science Literacy project was initiated by the Faculty of Science, University of Tasmania, to develop learning resources for teachers that showcased the university’s areas of research expertise. The project aimed to address the perception that teachers in rural or regional schools lack quality science resources. The program used a three-tiered approach.

- The first tier involved direct collaboration between university science researchers, science educators and teachers working in six rural schools to produce and test a teacher resource handbook containing teaching units. Resource kits were also developed and trialled.
- The second tier involved introducing the resource to other teachers and supporting it through PL.
- The third tier involved sending the resource to schools and evaluating the value of the resource for teachers involved at all three levels.

The evaluation (Brown & Le Roi, 2008) showed that teachers involved in both tiers one and two found the resource valuable and used it; however, there was limited response from the tier three teachers. In particular, the teachers involved in tier one valued the opportunity to build relationships with the researchers, to gain a greater awareness of research being done at the university, to reach shared understandings, and to trial the resources in their own contexts with the opportunity for modification and feedback. This phase of the project represented genuine collaboration, building of relationships over time with built-in opportunity for trial and reflection.

The second and third tiers, however, were problematic. One of the university science researchers developed multiple resource kits for schools where water quality could be tested by using small brine shrimps. He was very disappointed with the lack of take-up by teachers who had not been involved in initial development and trial of the resource, and the teachers’ lack of response to his offer of on-line support. As part of the evaluation (Kenny, Seen, & Purser, 2008), teachers were asked to give feedback on why they did or did not use the kits, or take advantage of the communication network offered. Practical reasons teachers gave for not taking up what was offered encouraged the researcher to adjust his perceptions of teachers and their contexts, realising he had been naïve to think that all he needed to do was to send

out resources to grateful teachers. He became interested in the different pedagogical approaches that teachers used, as well as the constraints they faced, and looked at ways that he could engage teachers in longer term pedagogic relationships. He was also led to reflect on his own university teaching pedagogy and to explore moving from traditional delivery of science content to a more problem-based learning approach.

This is a good example of a situation in which apparent lack of success in achieving initial purpose can lead to re-evaluation and subsequently much deeper insights and understandings of the contexts and cultures of the learners, leading to unexpected reciprocal learning outcomes. The challenge is how this to replicate this learning and relationship building to support sustainable processes of innovation, improvement and integration.

Case 2: East Coast Maths Project

The East Coast Maths project was designed to address Beswick and Brown's (2006) finding that, "models of professional learning that are effective in urban areas are not effective in rural and remote areas" (p. 85). The project was designed to overcome specific problems associated with traditional PL models identified by Beswick and Brown and in line with Hawley and Valli's (1999) synthesis of the characteristics of effective PL. Specifically it was intended to provide PL to build teaching and leadership capacity in mathematics, in the context of teachers' own schools and classrooms, that

- addressed needs identified by the participants;
- was sustained over a reasonable time frame;
- involved many teachers from each school;
- provided multiple sources of expertise (visiting PL providers to the schools, conference attendance of teachers, collegial networking); and
- required a school and individual commitment to engagement and accountability.

The project was designed to provide mathematics teaching PL that genuinely met the collective and individual needs of teachers in a relatively remote cluster of three schools. The original plan was that two PL providers would work with mathematics teachers of grades K-10, spending time in individual classrooms, with individuals and/or small groups of teachers throughout the school days, and with teachers from the cluster of schools in after-school sessions. The PL providers would visit the cluster for several days, a few weeks before the PL week, in order to meet with school principals and with teachers individually and in small groups to talk about issues they faced in their mathematics teaching and the kinds of assistance that might be useful. Teachers would also be asked to complete a survey that prompted them to reflect upon a wide range of aspects of their mathematics teaching and consider the kind of help that would be most useful.

Unfortunately, none of the possible PL providers were available at a time that was suitable for the schools to gather the data on the teachers' needs. These data were, therefore, collected by the project organiser and evaluator who spent two days in the schools talking with teachers and administering the surveys. The data were collated, summarised, and provided to the PL providers. No single PL provider was able to spend more than two days in the cluster and so a team of five was organised and rostered across the PL week to provide a total of 10 person days of PL in the cluster. Teachers made commitments to implementing negotiated changes in their mathematics teaching and to providing evidence of these changes using strategies such as maintaining a journal and collecting work samples.

The project evaluation suggested that the project resulted in important learning for a relatively small number of teachers. Other teachers picked up additional resources or snippets of information that extended their repertoires somewhat, but the evidence was not convincing that many shifted their perspectives or significantly rethought their approaches to mathematics teaching and learning. The project was most effective in the largest school in the cluster where the project coordinator, the principal and senior staff were able to develop a shared purpose and productive working relationship with the PL organizer/researcher. The principal championed the project with his staff by providing additional resources and implementing certain strategies. These included teachers' class release, discussing the opportunity presented by the project in staff meetings, stressing the importance of the initial survey and a second survey used as part of the project evaluation, and highlighting the credibility of the PL team, some of whom he had worked with before.

Although the importance of relationships between facilitators and teachers was recognised in the planning phase, facilitators failed adequately to understand and respond to teachers' needs and contexts, relationships being framed more as expert/novice rather than as genuine partnership. Teachers who initially indicated that they needed and would appreciate PL, found it very difficult to articulate their needs – perhaps because of the lack of relationship with the visiting team or because they were not aware of exactly what their needs were. The questionnaire survey conducted to ascertain teachers' needs was also designed to collect data for research purposes. This resulted in a lengthy questionnaire containing repetitive questions. The dual purpose of the questionnaire perhaps made teachers feel more like research subjects than project collaborators.

Lessons learned suggest that developing genuine partnerships requires extensive time and effort and that if the schedules of the schools and PL providers had allowed the original plan to be followed the project outcomes would have been more successful. However, despite the practical constraints, had the program been framed as a collaborative partnership among equals, teachers would have felt more able to state their needs and to negotiate the ends and means as the project progressed. In the school in which most was achieved the relationship between the PL providers and the teachers was mediated and strengthened by the principal. In terms of the partnership model (Figure 2), there was considerable overlap of the "spheres" of the principal and the facilitators in a positive way.

Case 3: Science Professional Learning Partnerships

The Science PL Partnerships project was set up to address perceived inadequate coverage of science in primary schools, stemming from an overcrowded curriculum and general lack of confidence in teaching science of pre-service and in-service primary teachers. As a result, most pre-service teachers had few opportunities to teach science or to see science teaching modelled during their practicum in rural schools. In this project pre-service teachers were given the opportunity to plan and run a six-week science program in a primary school as part of a science elective that was not part of their usual program practicum. It involved a three-way partnership between the pre-service teacher, an in-service teacher with the support of the science-educator from the university.

Evaluation of this project (Kenny, 2009) showed a shift in the relationship between the in-service teacher and the pre-service teacher from that which is typical in a practicum situation. The relationship moved from one of supervision to one of mutual learning where there was a mutual valuing of the other, as each was able to contribute to the whole learning

experience. The pre-service teacher provided the motivation, science lesson planning and access to resources; the in-service colleague teacher provided the classroom environment, knowledge of the learning context and mentoring and modelling of teaching pedagogies. The teacher-educator provided the science pedagogical content expertise (Shulman, 1987) and co-ordinated the project. In-service teachers reported that being freed from the responsibility of assessing the teaching performance of the pre-service teachers allowed them to learn from the younger colleagues, putting the relationship on a more equal footing. Since the science activities occurred in the primary teachers' own classrooms, some teachers reported they were freed to observe and reflect on their own practice with minimal class disruption. Additionally, the experience for some primary teachers, who had previously shied away from teaching science, of seeing their own students react with enthusiasm, was a powerful incentive. As most pre-service and in-service primary teachers have low levels of confidence in teaching science (Goodrum, Hackling, & Rennie, 2001), the PL encouraged participants to negotiate "border crossings" as they built on their general pedagogical skills to become teachers of science (Mulholland & Wallace, 2003).

Garet et al. (2001) described extended duration "reform" activities as an effective form of PL for transformational learning. They involve "features" such as study groups of teachers, mentoring and coaching, that can be organised within a teacher's normal day and, by making connections with classroom teaching, are easier to sustain over time. Such longer duration PL approaches provide greater opportunities for teachers to engage in active learning, to try out new ideas, observe and be observed, to discuss outcomes and to obtain feedback from colleagues. The project required the pre-service teachers to journal their responses to various critically reflective questions as well as to engage in reflective dialogue about the science lessons with their colleague teachers. Thus the PL learning approach adopted had many of the characteristics of "reform" activities.

In this project the mutuality of the partnership model was highlighted. When the partnership is working well, the roles of facilitator and learner are interchangeable. The project gave the pre-service teachers time to come to know not just their "partners" but also some of the school and class contexts that they came to share. "The reflective framework thinking tools" provided by the university science educator to guide the reflective process were important in helping pre-service teachers mediate their experiences and enhance the learning that emanated from them (Kenny, 2009). This process highlights the power that such tools have in breaking down habitual patterns of teaching behaviours and encouraging the development of new ones.

Case 4: Changing Teaching Practices Through the Introduction of ICT

This collaborative project to develop online resources for Vocational Education and Training (VET) problem-based teaching and learning began with a preliminary discussion between the chief researcher and the PL Manager of Technical and Further Education (TAFE) about combining possibilities for research and PL. The object was to find mutually compatible areas that would meet the needs of both parties. The PL Manager identified a need for a particular team in the construction/building learning area to move towards problem-based learning to meet the demand for flexible course delivery. The researcher's intent was to undertake a research project that met the organisation's PL needs. Thus there was considerable overlap between the purpose of the researcher and the PL Manager.

The research team used a teacher profiling instrument (Salter & Bound, 2009) consisting of interviews and a short questionnaire in order to gain an understanding of PL needs that might fit with the organisation's intention to develop resources for flexible delivery,. In addition, the researchers undertook two brief observation visits. Self-selected teachers were asked in interview about responses to and visions for flexible delivery practices, resources and structures to support flexible delivery, teaching practices, curriculum, experience with problem-based learning, and student learning. Survey questions asked about confidence in using flexible delivery to plan for and use approaches needed for problem-based learning. These included objectives for using flexible delivery, ICT skills and confidence, and participation in PL. This information provided base-line data relating to Schulman's (1987) teacher knowledge types and the major mental models and tools and resources used for teaching. It also provided some information about the rules and division of labour governing the organisation's activity (Bound & Salter, 2007) and teachers' perceptions of the intent and vision of the organisation.

The data from these instruments were used to design the first workshop with self-selected teachers, their managers and the PL Manager. The design of the workshop was a collaborative process with the PL Manager and involvement from the Team Manager. Recognising that a shift to problem-based learning required a considerable shift from existing pedagogy, a discussion session within the workshop was framed in terms of tensions: "On the one hand you want to achieve this, but on the other hand there are things constraining you." The aim was to make the various impeding contexts visible to the group so that these could become a shared problem.

From this discussion, it became clear to the research team that there was a gap between the rhetoric of team management and the rhetoric and practice of the teachers. The group quickly redefined flexible delivery as flexible learning, but there was limited explanation of what this actually meant. There was similar lack of clarity on the differentiation between assessment and learning evident in the practices of the institution. Nevertheless, in the workshop, there was considerable success as teachers began to explore the use of novel questioning techniques and to plan a way forward to develop resources using multi-media. Many of the construction/building team members had already participated in a number of sessions on how to make videos. As the team followed up on the commitment to develop multi-media resources, however, it became clear that the lack of pedagogical understanding of resource utilisation was a hugely limiting factor. One person with good ICT skills was given a small time release from teaching to develop a resource but the multi-media resource that was developed reflected a purely instructional approach, similar to current teaching methods, but online. Hence there was no real development of pedagogic practice.

The research team interviewed students as they trialled the resource. The analysis of these data was fed back to a much-expanded group of teachers, still self-selected. The outcome of the analysis proved to be a powerful learning tool for the teachers, as the voice of the apprentices was heard for the first time in this process. As a result teachers took to heart comments such as "it is just like a workbook, only with a few pictures thrown in." Apprentices made a number of suggestions and these were widely accepted. The strong commitment to ensuring apprentices received the best possible learning experience was tempered, however, by the day-to-day realities of teaching. Teachers' views of impediments to the development of problem-based learning resources included limited access to PL opportunities and inadequate knowledge of the learning management system, decisions about levels of access to the system, and most of all, time to dedicate to the development of resources. In addition, the practices and mental models of the team reflected the history of the

introduction of competency-based training and training-packages. These privileged individual learning rather than collaborative approaches to learning, and the use of workbooks encouraged a direct instructional pedagogy. Understanding the key decision makers' perceptions of change and what they value about change had proved to be yet another part of the puzzle of developing sustainable change management. Despite having gathered data about the context the team worked in, much that was subtle but important continued to surface over the life of the project. For researchers, this raised questions about the learning context: how does one quickly and effectively gain an understanding of the stance and commitment of key players, and how do researchers as outsiders enable real, sustainable change, especially when working with committed personnel who have no line-management control? In addition, getting to know the situated context, personal agendas, and leadership styles are all part of the knowledge required for an outside facilitator to acquire good leverage for long term sustainable change.

Genesis of a Thinking Tool: The Partnership Model

In 2008 the Tasmanian SiMERR hub began a process of meta-analysis of the 15 funded projects including the four case studies discussed in this study to inform a forum or Summit to be conducted for interested stakeholders¹. The main aims of the Summit were to

- use the feedback from the projects to help build up a broader and more detailed understanding of the issues and contexts;
- draw out common issues or themes across seemingly disparate projects, for example the roles of PL, change management strategies, collaborative leadership, creation of sustainable change, and relating to the community beyond the school;
- position the activities contained within the projects into a framework covering the dimensions of activities conducted by the many different organisations operating in Tasmania in relation to rural and regional concerns, thereby creating a systemic view for stakeholders to see their own contributions and connections with others;
- provide an opportunity for stakeholders to share their wisdom and their particular lenses in looking at the issues, in order to encourage emerging insights, connections and possibilities.

Key themes emerged from the Summit discussions, around the need to build *quality partnerships* between researchers, educators, business and the community, and the need for sustainable projects, rather than just one-off interventions. As part of continuing this process the first author adopted the role of a catalyst for, and facilitator of, the hub members' reflections on their own learning about PL and what *quality partnerships* might mean. In sharing experiences and exploring more deeply the implications of the projects and the Summit, the team realised that they were gaining a greater awareness of the issues of PL within complex rural environments and so were participating in their own PL. Each member brought a particular style, paradigm, set of experiences, discipline context, and academic understanding to the series of discussions, held over a year, which enabled both overlap and diversity. As part of their ongoing activities the hub members decided to engage in a collaborative self-study to develop their capacities for future PL research and leadership in rural and regional areas.

¹ The SiMERR summit "Ways to improve educational outcomes in rural and regional Tasmania" was held on 4th June 2008 (<http://www.simerr.educ.utas.edu.au/>)

In the discussions, facilitated by the first author, hub members were asked searching questions prompting them to examine their underlying beliefs about PL and to reflect deeply on their own PL as a result of their project involvement. Predominantly these included their perceptions of how their relationships with *teachers as clients* might significantly influence the effectiveness of what could be achieved as well as shape the research paradigms considered. By using metaphors to describe their processes and relationships the team was able to uncover hidden assumptions (Brookfield, 1995) and to explore alternative metaphors. This process revealed that underlying apparently diverse projects (in terms of their contexts, aims and outcomes) were a relatively small number of issues and principles that were then encapsulated in the group's Partnership Model for PL (Figure 2).

The Partnership Model for Professional Learning

The Partnership Model for PL foregrounds the relationship between the facilitator and the teacher as central to the PL exercise. This creates a space for PL in which the need for a genuine matching of understanding of contextual, value framing and leadership issues is recognised, resulting in shared motivation or explicit purpose. The model also recognises the need for mutual commitment to reflection and evaluation of the project as it evolves, as suggested by Moriarty and Gray (2003).

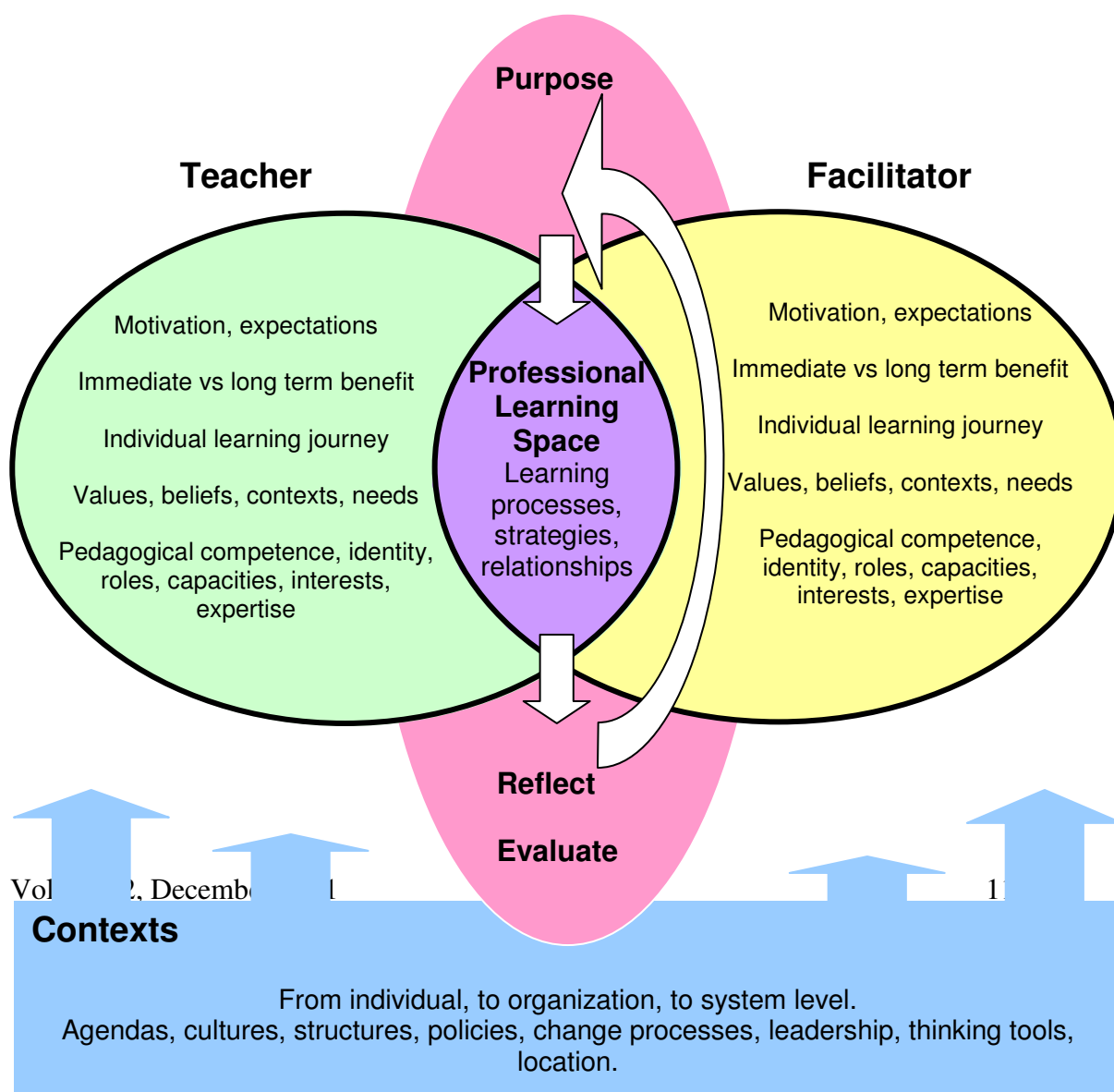


Figure 2: Partnership Model for Teachers' Professional Learning

The case study experiences, encapsulated in the model, suggest that there must be mutual respect and shared responsibility to create meaningful learning for all the participants. For the hub members, this means continually making visible much of what is invisible in the teaching/learning milieu and of which those involved may not consciously be aware. It requires sustained effort and communication to come to know each others' contexts and to learn to value each other in genuine rather than nominal collaboration. The importance of *mutual valuing*, as revealed by the case studies, is integral to the success of PL, particularly over the long term.

In the model in Figure 2, the teacher and facilitator are represented by two spheres that overlap. Each person brings to the PL different motivations, expectations, values, contexts, needs, capacities, ways of thinking or roles that are situated in and mediated by more systemic contexts. The extent to which these overlap defines a metaphorical space in which learning partnerships can evolve. A teacher in a rural and regional school, for example, might need to manage physical constraints imposed by distance, including poor access to PL expertise and lack of relief teachers to enable attendance at PL sessions. The teacher may also be inhibited by cultural constraints associated with school expectations, leadership support, and the thinking tools, or mental models, which they and others use in framing their learning needs. The facilitators may also be constrained and influenced by their own organisation's culture as expressed in expectations and historical ways of operating. It is important that they seek to develop an appreciation of the culture of the school and system that frames their work.

The spheres in the model are deliberately positioned side-by-side to indicate that the learning by each of the parties is mutual; both partners are engaged in learning. Although there is inevitably a power dimension to the relationship between the parties, the authors suggest that this can be deliberately challenged by asking at the outset, "How can *we all* contribute to the whole?" The extent to which there is a sense that everyone "owns" the problem and realises that they are bringing valued expertise and experience to its solution is a major determinant of the long term success of PL. In addition, such mutuality can free the facilitators from having to be the "experts" and the teachers from feeling diffident about expressing their classroom knowledge. Instead, both can identify as valued what they bring to the PL partnership and feel free to make their contributions.

Although ideally, a shared purpose would be made explicit at the outset, with open recognition of agendas, contexts or constraints, more often, as the case studies demonstrate, the contexts are partially concealed or poorly articulated until the PL program is well underway. Relationships that enable openness, more equitable power relations and a sharing of authentic aims and purposes through reflection and evaluation take a great deal of time to build, and this should be acknowledged in the way PL programs are designed. Valuing and incorporating a dynamic reflexive process from the first will enable deeper and more meaningful learning to emerge. This approach lends itself to longer term and more action-research-oriented programs, and is unlikely to be achieved in short-term one-off sessions.

In most instances, as the case studies demonstrate, there will be more "players" involved in the design, organisation, provision or evaluation of PL than have been depicted here. These include the school principal, local education authority personnel, and others involved in PL facilitation and/or research. Although the model simplifies the number of relationships involved it provides a useful checklist of what each PL partner contributes, which aspects of context are relevant, and how they can be managed to ensure the PL's effectiveness.

Discussion of Findings About the Collaborative Process

In conducting and discussing the projects, and in collaborating to write this paper, the authors have come to understand more deeply the role and nature of partnership in PL, especially as this relates to their own roles as “facilitators.” As such they have participated in their own multidimensional PL journey in unpacking the issues involved in the projects and in deepening shared understandings about what is meant about partnership, learning, sustainability, and contexts. These understandings, depicted in the model in Figure 2, are summarised as follows:

i) Preparing the Situation: Approaching “Wicked” or Complex Problems

Problems that are characterised by interconnection, uncertainty, conflicts and constraints have been described as “wicked” (De Wit & Meyer, 1999, pp. 33-34.) This description seems to fit efforts to enhance teaching and learning in rural and regional schools in that the whole of the context is initially unknowable to the facilitator as “incomer.” This unknowability is increased by the social and spatial distance confronting the usually urban-based “expert” facilitator in the rural situation. Short term PL projects can act as “probes” of such complex contexts and as a result they may reveal important understandings about the nature of the whole, which can lead to the development of longer term, context-sensitive PL programs. These longer term programs are more likely to produce not only specific “learning outcomes,” but also stakeholders’ awareness of the complexities of the issues involved. A more sensitive approach to PL that incorporates research-oriented, interpretative approaches, using information from a diversity of sources is thus likely to be more effective than uni-focus, short-term programs with narrowly defined goals. When preparing for a PL intervention, it is therefore important to ask questions that reveal hidden systemic contexts – organizational rules, procedures, policies, expectations, histories, and tools used (mental and physical) – to capture the constraints and affordances for possible actions, solutions and pathways, which are acceptable to all stakeholders.

ii) Building a Genuine Partnership

Some key characteristics of genuine partnerships include

- movement towards equality among participants achieved by uncovering and valuing existing expertise, acknowledging the perspectives of the other as valuable, flattening the power relationships so no one person is dictating the agenda, moving towards shared agendas, learning “with” one another rather than just creating learning “for them”;
- commitment to reflection that enables participants to reflect on what is valued, what the aims are, the extent to which they are being achieved and informing continuing evolution of purpose;
- co-creation of a mutual learning space where participants can be authentic selves, build a sense of trust so that it is possible to disclose agendas or aspects of self and to take risks;

- time to build relationships, and to uncover the interests, expertise and contexts of the people involved.

In order to ensure corporate continuity it is important to embed learning within practice and within the situational context, supported by a belief that the learning is significant, purposeful and meaningful to those involved and has been co-constructed and “owned.”. The PL process has its own rhythm and dynamic that mesh individual learning and systemic learning in periods of innovation and integration, building a culture that honours the complexity of teacher learning.

iii) Moving from Competing Agendas to Shared Purposes

Different stakeholders inevitably bring different agendas to the PL process. Teachers might want something pragmatic that they can use in their classrooms. The principal might want wider school change that embraces curriculum coherence and development. The education authorities might need proof of measurable student outcomes and value for money. The PL organizer wants to understand the issues, contexts, needs and prior knowledge of potential participants in order to create an effective program and source appropriate providers. Those who are researchers may be interested in gathering data on which to base publishable findings in academic articles. For ethical reasons this should always be transparent.

Tensions can be created when stakeholders’ agendas are in competition and in particular when these competing tensions are not made explicit to all partners. The partnership model suggests that, rather than seeing tensions as fundamental flaws they can be used strategically to help develop richer understandings and mutual trust, with a view to expanding the professional partners’ learning space. Using processes that allow people to be upfront about their concerns and perceptions of the situation enables reframing of competitive perceptions/agendas as acknowledged “tensions.” Viewed constructively these might pave the way to common ground.

iv) Working with Learning Contexts

The importance and influence of learning contexts cannot be under-estimated. Although efforts may be made to know the contexts and to control them, they may not be knowable or controllable. Staff shortages and high teacher turnover in rural schools may create ever changing teaching/learning contexts. Even in the same situation or location, however, the various experiences and thinking tools that people bring are likely to ensure that they mediate their situational contexts differently. Designing PL to take account of apparent contexts may reveal other “hidden” ones, as contexts are often layered. Within a holistic framework, there is a need to build relationships not only with teachers but also with other stakeholders, who influence the contexts of teachers and students. These include school and system leaders, policy makers and practitioners in both education and social policy areas. This is of particular interest in rural and regional situations where it is necessary to deal with interrelated social and spatial inequality.

There is a need to share responsibility for understanding and managing the contexts and their limitations from the first, even when shared knowledge is initially partial. The partnership model, for example, can be used with leaders to say, “Here is where we think we

can help you, but there are imperatives reflecting the whole school agenda where you could help us.” This will help gradually to build relationships and reveal contexts.

v) Aligning Purposes and Learning Needs with Learning Processes

There is a very real challenge for the stakeholders to create learning processes that are aligned with the capacities as well as the intentions of the participants. Questions that should be considered by all PL partners are the following.

- Who determines how the PL is structured, the ways of learning and what is being learnt? What are the capacities and capabilities of PL partners?
- What learning paradigms might inform such thinking?
- How might the form of learning be aligned with teachers’ contexts, learning styles, prior experiences, competencies, expectations?
- To what extent does the learning require “border crossings” in terms of pedagogy or personal transformation and what support might be needed to assist participants in such journeys?
- How might sustainability of learning be supported through networks or communities of practice, leadership, informational and practical resourcing, ongoing practice/reflection, cyclical energizing or accountability?
- How might deep learning and commitment to meaningful short term and long term goals be fostered?

These questions are relevant to PL in any context but some might be answered differently in rural contexts where, compared with urban schools, staff turnover is typically higher, teachers are on average less experienced, and access to professional networks is impacted by geographic isolation.

vi) Researching PL Programs

Although the partnership model can be used by any PL providers, there is a particular lesson for academic researchers hoping to conduct research programs around the efficacy of PL. In most of the SiMERR PL projects research was conducted by the hub members to help with both framing and evaluating the PL programs. In some cases this research was fundamental to the success of the project, in other cases it was counter-productive (setting up alienation between the researchers and the participants), and in still other cases there were misalignments between what the researcher wanted to know and what the teachers wanted to know and achieve. For example, the researchers may have wanted to know whether the program was working, whereas the teacher might want to better understand their students and the nature of the learning. The problems of transforming contested social and motivational spaces to ones of co-operation and collaboration proved challenging.

For the partnership model to work well, reflexivity of PL partners is critical. Even within an evaluative research paradigm, continuing reflection/monitoring/evaluation on how well the PL is meeting participants’ requirements should feed back into determining purposes and future directions. Research information that reveals and explores contexts can also be extremely helpful, but methods and survey frequency need careful thought. Questions to be considered include the following.

- Whose needs and agendas are being met in the research? Who sponsors and promotes the research? To what extent are the research questions and research objectives co-constructed?
- How far does the research give feedback in a timely manner to the participants to enable emergent and shared understandings during the course of a program? Is the process iterative or linear?
- Who conducts the research – external agent, teacher, peers, school leaders? Who owns and makes meaning of the data? Who interprets them and acts on them? Who is developing capacities for research?
- In what ways do teachers benefit from being involved in the research? To what extent do teachers feel valued when their insights and learnings help contribute to research and improvements in the future ... versus just filling out questionnaires or taking part in interviews?

These questions are particularly important in rural and remote school contexts where participants may feel they are guinea pigs for city researchers. A participatory action research paradigm where the participants are co-researchers, building not just their own teaching and learning capacity, but also a capacity for research into their practice is likely to enable more sustainable transformation, deeper understanding and mutuality.

Conclusion

The partnership model that is presented here summarises many important iterations of the meta-analysis re-visited by the facilitators over time. The process of discussion, through which the model became more complex and multi-dimensional, uncovered understandings of what the authors valued and revealed commonalities that might be represented diagrammatically. In future each PL facilitator referring to the model will be reminded of the layers of implicit meaning and will bring his or her own re-interpretation to the process of ‘unpacking’ them.

The model encapsulates much that is likely to be applicable to PL in any context. It is, however, particularly relevant to the kind of rural and regional contexts in which the case study schools are based, and the particular challenges and opportunities inherent in these contexts. The model’s usefulness lies in the co-construction of the stories and conversations behind it, and in understanding the ways in which the PL context mediates opportunities to re-examine the roles, identities and motivations of facilitators and teachers. The partnership model thus answers Sztajn et al.’s (2009) call for moving beyond a list of characteristics of effective PL towards describing the theoretical underpinnings of PL as they have come to be understood by the facilitators. Consistent with this view of learning, the model presents PL as a joint enterprise in which all participants are both learners and leaders, and highlights important aspects of the complexity involved in achieving learning at the higher levels described by Yorks and Marsick (2000). The authors suggest that other PL researchers and facilitators may find helpful both the model and the process by which it was co-constructed, providing triggers to their own thinking and as a springboard from which they might set about co-constructing their own PL partnership models.

References

- Abbott-Chapman, J. (2007). Improving participation of disadvantaged youth to post-compulsory education and training- a continuing challenge. In R. Maclean (Ed.), *Learning and teaching for the twenty-first century* (pp. 275-292). New York: Springer Science+Business Media.
- Abbott-Chapman, J. (2011). Making the Most of the Mosaic: Facilitating post-school transitions to higher education of disadvantaged students. *Australian Educational Researcher*, 38 (1), 57-71
- Australian Bureau of Statistics. (2004). *Australian Social Trends*. Cat. No. 4102.0. Canberra: Author.
- Australian Bureau of Statistics. (2007). *Australian Demographic Statistics*. Cat. No. 3101.0. Canberra: Author.
- Australian Bureau of Statistics (2010) *Schools Australia* Cat. No. 4221.0 accessed from: [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/69FF2D323E81F5F7CA25785500127A08/\\$File/42210_2010.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/69FF2D323E81F5F7CA25785500127A08/$File/42210_2010.pdf) . Released 17.3.11 and downloaded 22.5.11
- Alloway, N., Gilbert, P., Gilbert, R., & Muspratt, S. (2004). *Factors impacting on student aspirations and expectations in regional Australia*. Canberra: Department of Education, Science and Training.
- Anderson, N., Timms, C., & Courtney, L. (2007). "And twelve months later we are still waiting ---" Insights into teaching and use of ICT in rural and remote Australian Schools. *Seminar net -- International Journal of Media, Technology and Lifelong Learning*, 3(3).
- Baxter, J., Gray, M. & Hayes, A. (2011) *Families in regional, rural and remote Australia. Facts Sheet 2011*. Australian Institute of Family Studies, Australian Government. Access on: <http://www.aifs.gov.au/institute/pubs/factsheets/2011/fs201103.html>
- Baines, D. L. (1997). A comparison of four models of group efforts and their implications for establishing educational partnerships. *Journal of Research in Rural Education* 13(3), 143-152.
- Beswick, K., & Brown, N. R. (2006). "The teachers give as much as they can, not as little as they can": Report from SiMERR Tasmania. In T. Lyons (Ed.), *Science, ICT and Mathematics Education in Rural and Regional Australia: State and Territory Case Studies* (pp. 65-87). Armidale, NSW: National Centre of Science, ICT and Mathematics Education for Rural and Regional Australia.
- Bound, H., & Salter, A. (2007). Using ICT resources in project-based learning within a vocational education and training environment. In J. Sigafoos & V. Green (Eds.), *Technology and teaching* (pp. 89-99). New York: Nova Science Publishers.
- Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian Higher Education Final Report*. Canberra: Department of Education, Employment and Workplace Relations.
- Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass.
- Brown, N., LeRoi, J. M., & Johnston, M. (2008, July). *Expanding science literacy in Tasmanian regional and rural schools: Evaluation of teacher experience*. Paper presented at CONASTA, Brisbane, Australia.
- Centre for the Study of Higher Education (2008). *Participation and equity: A Review of the participation in higher education*. Melbourne: University of Melbourne.
- Cresswell, J., & Underwood, C. (2004). *Location, location, location: Implications of geographic situation on Australian student performance in PISA 2000*. ACER Research Monograph No. 58. Camberwell, VIC: Australian Council for Educational Research.

- Colangelo, N., Assouline, S. G., Baldus, C. M., & New, J. K. (2002). Gifted children in rural schools. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (2nd ed.) (pp. 572-581). Boston: Allyn & Bacon.
- De Wit, B., & Meyer, R. (1999). *Strategy synthesis: Resolving strategy paradoxes to create competitive advantage*. London: International Thomson Business Press.
- Eisen, M.-J. (2001). Peer based professional development viewed through the lens of transformative learning. *Holistitc Nursing Practice*, 16(1), 30-42.
- Freire, P. (1972). *Pedagogy of the oppressed*. Harmondsworth: Penguin.
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Goodrum, D., Hackling, M., & Rennie, L. (2001). *The status and quality of teaching and learning of science in Australian schools*. Australian Government, Canberra: Department of Education Science and Training. Retrieved April 2009 from: http://www.dest.gov.au/sectors/school_education/publications_resources/profiles/status_and_quality_of_science_schools.htm
- Green, B., & Reid, J. (2004). Teacher education for a rural-regional sustainability: Changing agendas, challenging futures, chasing chimeras? *Asia Pacific Journal of Teacher Education*, 32(3), 255-273.
- Hawley, W. D., & Valli, L. (1999). The essentials of effective professional development. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession* (pp. 127-150). San Francisco: Jossey-Bass.
- Jofili, Z., Geraldo, A., & Watts, M. (1999). A course for critical constructivism through action research: A case study from biology. *Research in Science and Technological Education*, 17(1), 5-17.
- Kenny, J. (2009). A partnership based approach to professional learning: Pre-service and in-service teachers working together to teach primary science. *Australian Journal of Teacher Education*, 34(6), 1-22.
- Kenny, J., Seen, A., & Purser, J. (2008). Support secondary science teachers in rural and regional schools. *Teaching Science*, 54(3), 19-24.
- Kilpatrick, S., & Abbott-Chapman J., (2002). Rural young peoples' work/study priorities and aspirations: The influence of social capital. *Australian Education Researcher*, 29(1), 43-68.
- Lerman, S. (1997). The psychology of mathematics teachers' learning: In search of theory. In E. Pehkonen (Ed.), *Proceedings of the 21st Conference of the International Group for the Psychology of Mathematics Education* (Vol. 3, pp. 200-207). Lahti, Finland: PME.
- Lieberman, A. (1995). Practices that support teacher development: Transforming conceptions of professional learning. *The Phi Delta Kappan*, 76(8), 591-596.
- Maher, D. (2010). Supporting students' transition from primary school to high school using the internet as a communication tool. *Technology, Pedagogy and Education*, 19(1), 17-92.
- Mezirow, J., and Associates. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco: Jossey-Bass.
- Mills, C., & Gale, T. (2003). Transient teachers: Mixed messages of schooling in regional Australia. *Journal of Research in Rural Education*, 18(3), 145-151.
- Moriarty, B., & Gray, B. (2003). Future directions: A model for educational partnerships in Australia. *Journal of Research in Rural Education*, 18(3), 159-163.

- Mulholland, J., & Wallace, J. (2003). Crossing borders: Learning and teaching primary science in the pre-service to in-service transition. *International Journal of Science Education*, 25(7), 879-898.
- Prins, E. (2006). Individual roles and approaches to public engagement in a community-university partnership in a rural California town. *Journal of Research in Rural Education*, 21(7). Retrieved 30th September 2009 from: <http://jrre.psu.edu/articles/21-7.pdf>
- Rogers, E. M. (1995). *Diffusion of innovations*, New York: The Free Press, Simon & Schuster.
- Salter, A., & Bound, H. (2009). Using a profiling instrument to design teacher professional learning. *Journal of Vocational Education and Training*, 61(1), 53-66.
- Schifter, D. (1995). Teachers' changing conceptions of the nature of mathematics: Enactment in the classroom. In B. S. Nelson (Ed.), *Inquiry and the development of teaching: Issues in the transformation of mathematics teaching* (pp. 17-25). Newton, MA: Center for the Development of Teaching, Educational Development Center.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.
- Silver, E. A. (2003). Border crossing: Relating research and practice in mathematics education. *Journal for Research in Mathematics Education*, 34, 182-184.
- Sowder, J. T. (2007). The mathematical education and development of teachers. In F. K. J. Lester (Ed.), *Second handbook of research on mathematics teaching and learning* (Vol. 1, pp. 157-223). Charlotte, NC: Information Age Publishing.
- Stack, S. (2007). *Integrating science and soul in education: The lived experience of a science educator bringing holistic and integral perspectives to the transformation of science teaching*. Unpublished doctoral dissertation, Curtin University of Technology, Perth.
- Stein, M. K., Smith, M. S., & Silver, E. A. (1999). The development of professional developers: Learning to assist teachers in new settings in new ways. *Harvard Educational Review*, 69(3), 237-269.
- Sztajn, P., Campbell, M. P., & Yoon, K. S. (2009). Conceptualizing professional development in mathematics: Elements of a model. In M. Tzekaki, M. Kaldrimidou & H. Sakonidis (Eds.), *Proceedings of 33rd annual conference of the International Group for the Psychology of Mathematics Education* (Vol. 5, pp. 209-216). Thessaloniki, Greece: PME.
- Talbert, J., Coburn, C., Eilers, A., Lin, W., & McLaughlin, M. (2008). *The Learning Partnership Documentation: Final report*. Minneapolis, MN: Centre for Research on the Context of Teaching and Stanford University School of Education.
- Thomson, S., Cresswell, J., & De Bortoli, L. (2004). *Facing the future: A focus on mathematical literacy among Australian 15-year-old students in PISA*. Camberwell, VIC: Australian Council for Educational Research.
- Torbert, W. R (2004). *Action Inquiry: The secret of timely and transforming leadership*. San Francisco: Barret-Koehler Publishers.
- Yorks, L., & Marsick, V. (2000). Organizational learning and transformation. In Mezirow, J. & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress*. (pp. 253-281). San Francisco: Jossey-Bass.
- Watson, J. M., & Stack, S. (2009). *The SiMERR experience in Tasmania*. Refereed paper presented at the Australian Association for Research in Education annual conference, Brisbane, December, 2008. Available at <http://www.aare.edu.au/08pap/wat08654.pdf>

- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston: Harvard Business School Press.
- Williams, I., & Thorpe, R. (1998). Small primary schools in rural Wales: Frameworks of collaboration. *Journal of Research in Rural Education*, 14(3), 161-171.

Acknowledgment

This research was funded through the National Centre for Science, ICT, and Mathematics Education in Rural and Regional Australia and by a Faculty of Education, University of Tasmania research grant to the SiMERR Tasmania Hub. The authors acknowledge contributions to their discussions by Andrew Fluck and thank the Hub Coordinator Prof. Jane Watson for reading and providing feedback on several earlier drafts of this paper.